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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/840,328	04/23/2001	John Zhu	50P4402.01	4086

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EXAMINER

LEZAK, ARRIENNE M

ART UNIT

PAPER NUMBER

2143

DATE MAILED: 03/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/840,328

Applicant(s)

ZHU ET AL.

Examiner

Arrienne M. Lezak

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Examiner notes that Claim 1 has been amended and no Claims have been added or cancelled. Claims not explicitly addressed herein are found to be addressed within prior Office Action dated 1 December 2004 as reiterated herein below.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over extensive consideration of US Patent US 6,522,641 B1 to Siu.

3. Regarding Amended Claim 1 and Original Claims 2, 6, 7, 12-14, 18, 22-25 & 29 Siu discloses an Internet packet (IP) mobile wireless communication system, method and network (Abstract) comprising:

- at least one network operation center (NOC), including at least one home domain having at least one associated home agent, (Figs. 5-7 and Cols. 5-8);
- plural base stations communicating with the NOC, each base station

having at least one router and at least one foreign domain having at least one foreign agent, (Col. 1, lines 52-67; Col. 2, lines 1-4; and Col. 5, lines 37-53); and

- plural client devices in wireless IP communication with at least one base station, (Col. 1, lines 52-67 & Col. 2, lines 1-4), whereby a base station detecting a client device uses its associated foreign agent to communicate at least one access request to the NOC, at least one client device being associated with at least one IP address, the IP address being combined with an identification of the foreign agent of the foreign domain of a base station, the access request including the combined client device IP address/foreign agent identification, (per amended Claim 1), (Col. 6, lines 37-67; & Cols. 7 & 8), (Examiner notes that Siu teaches communication between subscribers on the same network as well as subscribers on different networks, (Col. 6, lines 29-36), which communication obviously reads upon the well-known use of client device IP address/foreign agent identification, as further noted within the references listed below but not relied upon);
- sending data to plural base stations and transmitting the data in IP format to at least one client device in wireless communication with at least one base station using a data transfer rate in excess of one megabyte per second, (per pending Claims 22-24), (Col. 5, lines 37-53; Col. 6, lines 37-67; & Cols. 7 & 8);

- wherein each client device is assigned an IP address and each base station stores accounting data related to network access of a client device through the base station, (per pending Claims 2, 12, 14 & 29), (Col. 5, lines 37-53), (Examiner notes that storage is a common equipment element – especially within Siu wherein the base station submits a request and awaits a response, thereby requiring a memory functionality for correlation purposes);
- wherein the NOC sends an acknowledgement of an access request to a base station to grant an access request from the base station, (per pending Claims 6, 12 & 18), (Col. 6, lines 37-67 & Cols. 7-8); and
- wherein mobile, up to the minute subscription services are provided to at least one client device by the NOC through at least one base station, (per pending Claims 7 & 12), (Col. 6, lines 37-67 & Cols. 7-8).

4. Examiner notes that Siu discloses a subnet controller, (Col. 5, lines 54-63), which controller controls a segment of the network, (Figs. 5 & 6), and which controller contains an interface for connecting to the network management center. Examiner finds that it would have been obvious to one of ordinary skill in the art at the time of invention by Applicant to have the subnet controller located within the network management center wherein network traffic would be minimized, particularly within smaller networks.

Moreover, per Applicant's "network operation center", (NOC), as noted within Applicant's specification, Examiner notes that the functionalities incorporated within the subnet controller serve to recognize and maintain account data for client devices on the

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network, which functionalities read upon those functionalities essential to Applicant's NOC. Moreover, as Siu teaches an IP network, Examiner finds the use of domain names/IP addresses for identification purposes and domain agents for transportation purposes to be obvious. Thus, Amended Claim 1 and Original Claims 2, 6, 7, 12-14, 18, 22-25 & 29 are found to be unpatentable over considerable consideration of the teachings of Siu.

5. Regarding Claims 3 & 15, Siu discloses an Internet packet (IP) mobile wireless communication system, method and network, wherein the accounting data is sent to the NOC, (subnet controller), for correlation thereof to a client device registered at the NOC, (Col. 5, lines 54-67 & Cols. 6-8). Thus, Claims 3 & 15 are found to be unpatentable over considerable consideration of the teachings of Siu.

6. Regarding Claims 4, 16, 26 & 27, Siu discloses an Internet packet (IP) mobile wireless communication system, method and network, wherein the NOC, (subnet controller), grants an access request using the combination of the client IP address and the foreign agent name, (per pending Claims 26 & 27), when the client device associated with the request is registered at the NOC, (subnet controller), (Col. 6, lines 37-67 & Cols. 7-8). Examiner notes that Siu discloses an authentication system, which system renders obvious Applicant's specific access request means, as it would have been obvious to identify the client by its IP address and the base station by its foreign, (domain), name for purposes of authentication and communication generally within the Siu network. Thus, Claims 4, 16, 26 & 27 are found to be unpatentable over considerable consideration of the teachings of Siu.

7. Regarding Claims 5 & 17, Siu discloses an Internet packet (IP) mobile wireless communication system, method and network, wherein the NOC, (subnet controller), stores information relative to each client device registered at the NOC, (Figs. 6-7; Col. 5, lines 54-67 & Cols. 6-8). Thus, Claims 5 & 17 are found to be unpatentable over considerable consideration of the teachings of Siu.

8. Regarding Claims 8 & 19, Siu discloses an Internet packet (IP) mobile wireless communication system, method and network, wherein each router includes information to enable the router to recognize IP packets from foreign agents and home agents, Col. 5, lines 37-67 & Cols. 6-8). Examiner notes that Siu discloses optimized routing for the distribution network, (Figs. 5-7), which routing would obviously include recognition of all agent and related agent information. Thus, Claims 8 & 19 are found to be unpatentable over considerable consideration of the teachings of Siu.

9. Regarding Claims 9 & 20, Siu discloses an Internet packet (IP) mobile wireless communication system, method and network, wherein the home agent informs foreign agents of types of client devices communicating on the system, (Col. 5, lines 54-67 & Cols. 6-8). Examiner notes that Siu discloses home agent, (subset controller), communication with foreign agent, (base station), which communication would obviously include data concerning device types on the system, as the base station would need such information for efficient network communication and mitigation generally. Thus, Claims 9 & 20 are found to be unpatentable over considerable consideration of the teachings of Siu.

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10. Regarding Claims 10, 21 & 30, Siu discloses an Internet packet (IP) mobile wireless communication system, method and network, wherein a location of at least one client device is tracked and subscription services provided thereto based at least partially on the location, (Col. 5, lines 54-67 & Cols. 6-8). Examiner notes that Siu discloses a policy server to determine the rules and boundaries of the tunnel set-up, which rules and boundaries would obviously include a location parameter, as subscriptions defined by location are well-known in the art for billing purposes, (i.e.; long-distance vs. local calling and roaming charges). Thus, Claims 10, 21 & 30 are found to be unpatentable over considerable consideration of the teachings of Siu.

11. Regarding Claim 11, Siu discloses an Internet packet (IP) mobile wireless communication system, method and network, wherein each client device includes a directional antenna and an IP transceiver electrically coupled to the antenna for communicating with the base stations, (Col. 3, lines 29-38). Thus, Claim 11 is found to be unpatentable over considerable consideration of the teachings of Siu.

12. Regarding Claim 28, Siu discloses an Internet packet (IP) mobile wireless communication system, method and network, further comprising permitting a first client device to communicate with a second client device via at least one base station, Col. 4, lines 44-67). Thus, Claim 28 is found to be unpatentable over considerable consideration of the teachings of Siu.

Response to Arguments

13. Applicant's arguments filed 17 December 2004, have been fully considered but they are not persuasive. Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made.

14. Regarding Applicant's argument concerning Siu not enumerating a "data rate", Examiner draws Applicant's attention to the implementation of a 100BaseT network interface specifically noted within Siu, (Col. 5, lines 48-50).

15. Regarding Applicant's argument concerning the use of foreign agents, Examiner notes that the use of foreign agents and client device IP address/foreign agent identification is well known in the art for facilitating communication throughout multiple networks, as noted herein above relative to Amended Claim 1.

16. Regarding Applicant's argument that the base station is incapable of storing "at least some accounting data", Applicant is reminded that the Examiner is to interpret the claims in their broadest meaning. In this case, Examiner finds that the base station inherently maintains data used for accounting purposes in that the base station is relied upon for transmission and receipt of data, which data inherently is accounted for as it moves throughout the network, and which data would obviously be monitored in some way as it passed through the base station to a destination such as the client or the NOC. Moreover, as noted herein, Examiner finds that as the claims are so broadly written, one interpretation of the same would be to find the subnet controller in essence

acts as an NOC, (Fig. 7; Col. 5, lines 64-67; & Col. 6, lines 1-28), particularly in light of the functionalities that Applicant has attributed to the NOC, which functionalities include client registration and the accounting/correlating of client data, (Fig. 7). Additionally, Examiner notes that Siu also discloses a Network Management Center, (Fig. 7), which Network Management Center could also obviously be interpreted to read upon Applicant's claims in a broader sense of the invention. Finally, Examiner would like to clarify that "considerable consideration" is to be understood as "extensive consideration" of the same.

17. Examiner has addressed Applicant's Amendment, and has further rejected all Amended & Original Claims, as noted herein above. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

18. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US Patent US 6,243,758 B1 to Okanoue; and

US Patent US 6,442,616 B1 to Inoue.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arrienne M. Lezak whose telephone number is (571)-272-3916. The examiner can normally be reached on M-F 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571)-272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AML

Arrienne M. Lezak
Examiner
Art Unit 2143


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